

UNITED STATES DISTRICT COURT  
EASTERN DISTRICT OF WISCONSIN

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KIMBERLY-CLARK WORLDWIDE, INC. and  
KIMBERLY-CLARK GLOBAL SALES, LLC,

Plaintiffs,

v.

Case No. 09-C-0916

FIRST QUALITY BABY PRODUCTS, LLC,  
FIRST QAULITY RETAIL SERVICES, LLC, and  
FIRST QUALITY CONSUMER PRODUCTS, LLC,

Defendants.

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**DECISION AND ORDER GRANTING SUMMARY JUDGMENT  
OF NON-INFRINGEMENT OF '221 PATENT**

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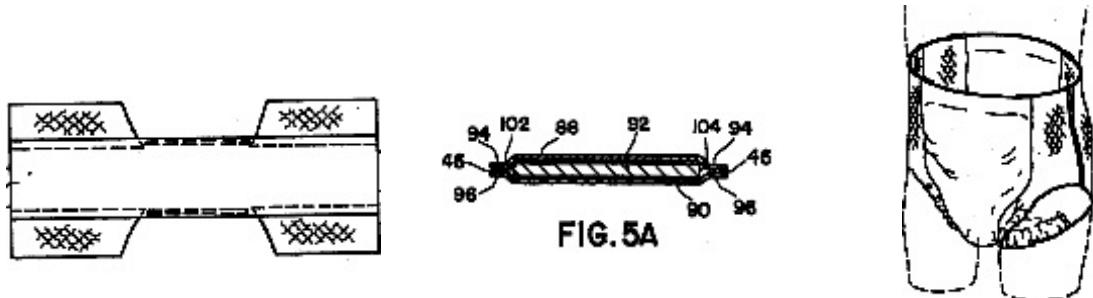
Plaintiffs Kimberly-Clark Worldwide, Inc. and Kimberly-Clark Global Sales, LLC (K-C) sued Defendants First Quality Baby Products, LLC, First Quality Retail Services, LLC, and First Quality Consumer Products, LLC (First Quality) for infringement of various K-C patents related to disposable absorbent training pants and the process used to manufacture and assemble these training pant products. Both parties have filed multiple motions seeking summary judgment on a variety of issues concerning validity and infringement of K-C's patents. Before me now is First Quality's motion for summary judgment (ECF No. 604) on K-C's claim that First Quality's current manufacturing process for its competing training pant product infringes Claims 4, 5, 7, 10, 15, and 16 of U.S. Patent No. 6,513,221 (the '221 Patent) to which K-C is the assignee. For the following reasons, First Quality's motion will be granted.

## BACKGROUND

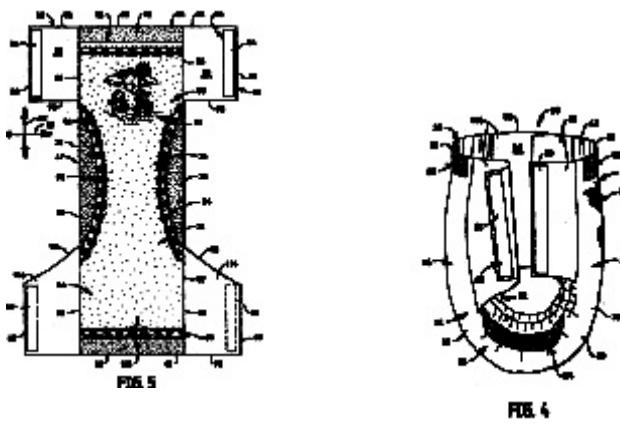
K-C accuses First Quality of infringing that part of the manufacturing process K-C claims it invented for prefastened disposable garments that is protected by K-C's '221 Patent. The '221 Patent is entitled "Garment Side Panel Conveyor System and Method" and discloses a method and apparatus for positioning side panels so that they can be fastened during the manufacture of refastenable disposable garments. ('221 Patent, ECF No 602-1.) As explained in previous decisions, K-C was the leader in the manufacture and design of disposable training pants with refastenable side-seams for the consumer market. The refastening feature made it easier to check the condition of the training pants when worn and to remove them if an accident occurred. Key to the success of the new product was the fact that it was sold in a pre-fastened condition. In other words, the product came out of the package with the look and feel of training pants that are placed on the child by pulling them up (thus, the name Pull-Ups®), as opposed to a diaper that is fastened around the child as he lies on his back. In order for the product to be successful, K-C needed to design a way in which the side-panels of the training pants could be brought together on the assembly line and the Velcro® hook and loop fasteners joined with the speed and efficiency that the manufacturing process required.

As K-C's technical experts have explained, designing a process to manufacture disposable training pants with refastenable seams posed a difficulty that the manufacture of the original disposable training pants with permanently bonded seams did not. A disposable training pant is typically comprised of a chassis consisting of a liquid impervious outer cover and a liquid pervious liner with an absorbent material between them that covers the area of the child's crotch, both front and back. The chassis is held in place by elastic side panels that protrude from the chassis and are literally joined at the hip to create openings for the legs and waist. The figures below, taken from

U.S. Patent No. 4,940,464 issued to Van Gompel, show the orientation of a disposable training pant without refastenable side seams as it moves from its pre-assembled to assembled states:



For training pants without refastenable seams, the pant need only be folded at the crotch area and the side panels brought together so that they can be bonded together. The process is not so simple for training pants with refastenable seams, however. After such a pant is folded, the hook and loop fasteners cannot be connected because they do not face each other. One side panel must be inverted so that its fastening element faces and is aligned with the fastening element on the other panel before they are brought together. Below are figures from the '221 Patent depicting the orientation of a refastenable training pant before and at the point of fastening:



The difficulty K-C faced was how to bring the fastening components on the side panels into alignment so that the training pants could be assembled at the speed and cost required for mass production of a consumer product. The '221 Patent describes K-C's solution to this problem.

K-C asserts that First Quality infringes Claims 4, 5, 7, 10, 15, and 16 of the ‘221 Patent. Claims 5, 7 and 10 depend from independent Claim 4, and Claim 16 depends from independent Claim 15. First Quality’s argument focuses on the two independent claims which are set forth below:

4. A method for making a prefastened and refastenable pant, comprising:
  - transporting a folded pant in a machine direction, the folded pant having opposite first and second waist regions in facing relation, the first waist region comprising first side panels and the second waist region comprising second side panels, the first side panels comprising initially inward-facing fastening components, and the second side panels comprising initially outward-facing fastening components;
  - inverting the initially outward-facing fastening components;
  - transporting the first side panels on side panel transfer devices while the folded pant is transported in the machine direction;
  - moving the initially inward-facing fastening components toward the inverted initially outward-facing fastening components while the first side panels are transported on the side panel transfer devices; and
  - engaging the initially inward-facing and initially outward-facing fastening components.
15. A method for making a pant, comprising:
  - providing a pant chassis defining a first waist region, a second waist region, a crotch region which extends between and interconnects the waist regions, first side panels disposed in the first waist region and second side panels disposed in the second waist region;
  - folding the pant chassis about a fold line extending in a lateral direction through the crotch region, thereby positioning the waist regions and first and second side panels in a facing relation;
  - transporting the folded pant chassis in a machine direction thus defining a pant transport plane and a z-direction perpendicular to the pant transport plane;
  - transporting the first side panels on side panel transfer devices while the folded pant chassis is transported in the machine direction, each side panel transfer device defining a side panel transport path which intersects the pant transport plane;
  - moving the first side panels in the z-direction toward the second side panels while the first side panels are transported on the side panel transfer devices;
  - refastenably engaging the first and second side panels; and

further comprising folding the second side panels prior to refastenabley engaging the first and second side panels.

(‘221 Patent col. 33 lns. 20-40, col. 34 lns. 33-67.)

The parties filed a stipulation agreeing to the construction of several of the claim terms at issue for the ‘221 Patent, which I adopted. (Claim Construction Order 4, ECF No. 334.) The parties agreed that “z-direction” means a “direction perpendicular to the pant transport plane.” In addition to “z-direction,” the parties stipulated to the construction of the term “side panel transfer devices” to mean “devices on which the side panels are transported.” (Joint Submission of Agreed and Disputed Claim Constructors 3, ECF No. 328.) The parties also stipulated to the construction of the term “intersects” to mean “crosses.” (*Id.*) As for the remaining claim terms of the ‘221 Patent, the plain and ordinary meaning of the relevant terms governs. These are the claims against which First Quality’s process must be measured.

It should be noted that the present motion concerns only First Quality’s current manufacturing process. First Quality changed its process after K-C brought suit and whether its earlier process infringes the ‘221 Patent is not presently before the Court. As to its current process, however, First Quality argues that it differs from the process claimed in the ‘221 Patent in several significant ways. First, because the section of side panels bearing the loop fastening components on its training pants are folded before they are attached to the chassis, First Quality contends that it has no need to invert the side panels after the pant is folded laterally at the crotch as the ‘221 Patent teaches in order to orient the fastening components toward each other. For the same reason, First Quality contends its process does not use “side panel transfer devices” called for in both Claims 4 and 15. Finally, First Quality contends that its training pants have front and back side

panels that are of different widths so that, even though the portion of the side panel on which the loop fastening component is located is folded, the fastening components are properly aligned after the lateral fold in the crotch area of the chassis occurs. As a result, First Quality contends that its process does not require further movement of the side panels in the z-direction in order to align the fastening components as Claim 15 of the ‘221 Patent also teaches. Because of these differences, First Quality contends that its process does not infringe the ‘221 Patent.

## **LEGAL STANDARD**

A motion for summary judgment should be granted when there is no genuine issue of material fact and the moving party is entitled to judgment as a matter of law. Fed. R. Civ. P. 56(c); *Celotex Corp. v. Catrett*, 477 U.S. 317, 322 (1986). “Material” means that the factual dispute must be outcome-determinative under law. *Contreras v. City of Chicago*, 119 F.3d 1286, 1291 (7th Cir. 1997). A “genuine” issue must have specific and sufficient evidence that, were a jury to believe it, would support a verdict in the non-moving party’s favor. Fed. R. Civ. P. 56(e); *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 249 (1986). The moving party has the burden of showing there are no facts to support the non-moving party’s claim. *Celotex*, 477 U.S. at 322. In determining whether to grant a motion for summary judgment, the court should consider the evidence presented in the light most favorable to the non-moving party. *Anderson*, 477 U.S. at 255. When the record, taken as a whole, could not lead a rational jury to find for the non-moving party, there is no genuine issue and therefore no reason to go to trial. *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 587 (1986).

Although patent infringement is a question of fact, it is one that can often be resolved on summary judgment. Summary judgment is appropriate if the court concludes that no reasonable jury could find infringement. *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 39 n. 8 (1997). “Where the parties do not dispute any relevant facts regarding the accused product . . . but disagree over possible claim interpretations, the question of literal infringement collapses into claim construction and is amenable to summary judgment.” *Gen. Mills, Inc. v. Hunt-Wesson, Inc.*, 103 F.3d 978, 983 (Fed. Cir. 1997).

## ANALYSIS

An infringement analysis involves two steps: (1) construing the patent’s claims and (2) comparing the claims to the accused device. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 976 (Fed. Cir. 1995) (en banc), *aff’d*, 517 U.S. 370 (1996). The application of the construed claims to the accused device is a question of fact. *In re Gabapentin Patent Litig.*, 503 F.3d 1254, 1259 (Fed. Cir. 2007). For there to be literal infringement, there must be a determination that “every limitation recited in the claim appears in the accused device, i.e., when ‘the properly construed claim reads on the accused device exactly.’” *DeMarini Sports, Inc. v. Worth, Inc.*, 239 F.3d 1314, 1331 (Fed. Cir. 2001) (quoting *Amhil Enters., Ltd. v. Wawa, Inc.*, 81 F.3d 1554, 1562 (Fed. Cir. 1996)). “If any claim limitation is absent from the accused device, there is no literal infringement as a matter of law.” *Bayer AG v. Elan Pharm. Research Corp.*, 212 F.3d 1241, 1247 (Fed. Cir. 2000). If an accused product does not infringe an independent claim, then it does not infringe its dependent claims. *See Wahpeton Canvas Co., Inc. v. Frontier, Inc.*, 870 F.2d 1546, 1553 (Fed. Cir. 1989).

1989). The plaintiff, K-C, bears the burden of proving infringement by a preponderance of the evidence. *Kegel Co., Inc. v. AMF Bowling, Inc.*, 127 F.3d 1420, 1425 (Fed. Cir. 1997).

First Quality argues that its process does not literally infringe the ‘221 Patent for three reasons: (1) First Quality’s process does not transport a “folded pant” with “initially outward-facing fastening components” and never “inverts” the initially outward-facing fastening components as required by Claims 4, 5, 7, and 10; (2) First Quality’s process does not have “side panel transfer devices” required by independent Claims 4 and 15 and their relevant dependent claims; and (3) First Quality’s process does not transport the side panels in a “z-direction” as required by Claims 15 and 16.

### **1. Transporting a Folded Pant with Initially Outward-Facing Fastening Components**

First Quality’s interpretation of Claim 4 necessarily restricts the order of the claimed process. First Quality contends that Claim 4 requires a “folded pant,” which is defined as “having” first and second waist regions in a “facing relation.” The second waist region is “compris[ed]” with side panels “comprising initially outward-facing fastening components.” Because the “folded pant” must have initially outward-facing fastening components that are subsequently “inverted,” First Quality argues that its process cannot literally infringe because its process inverts the side panels prior to folding the pant. Thus the pant’s first and second side panels’ fastening components are all inward-facing when the pant is folded in half.

K-C counters that First Quality is attempting to constrict Claim 4 to a particular sequence of steps that is not supported by the specifications or the claim language. Rather, Claim 4 requires an “initially outward-facing fastening component.” This outward-facing orientation can occur prior to folding K-C argues. K-C argues that because First Quality’s side panel is inverted prior to

folding the pant, a reasonable jury could find that First Quality's process meets the "initially outward-facing fastening component" limitation.

In general, if the method of a process does not recite a specified order of steps to be performed in sequence, the claims are not ordinarily construed to require a particular sequence.

*Interactive Gift Express, Inc. v. Compuserve Inc.*, 256 F.3d 1323, 1342 (Fed. Cir. 2001) (citing *Loral Fairchild Corp. v. Sony Corp.*, 181 F.3d 1313, 1322 (Fed. Cir. 1999) ("[N]ot every process claim is limited to the performance of its steps in the order written")). However, a claim may be read to require a sequence "when the method steps implicitly require that they be performed in the order written." *Id.* In "determining if the steps of a method claim that do not otherwise recite an order, must nonetheless be performed in the order in which they are written," the Court must follow a two-part test. *Altiris, Inc. v. Symantec Corp.*, 318 F.3d 1363, 1396 (Fed. Cir. 2003). "First, we look to the claim language to determine if, as a matter of logic or grammar, they must be performed in the order written . . . . If not, we next look to the rest of the specification to determine whether it 'directly or implicitly requires such a narrow construction.'" *Id.* at 1369-70 (quoting *Interactive Gift*, 256 F.3d at 1343).

In terms of grammar, Claim 4 indicates that the "folded pant [has] . . . second side panels comprising initially outward-facing fastening components." The grammatical construction of Claim 4—"folded pant *having*"—supports the interpretation that the second side panels have initially outward-facing fastening components that have not yet been inverted when the pant is folded in half. The plain and ordinary meaning of "having" is "to be marked or characterized by (a quality, attribute, or faculty)." MERRIAM-WEBSTER'S COLLEGIATE DICTIONARY 533 (10th ed. 1999). Claim 4 instructs that the "folded pant" is characterized by "opposite first and second waist

regions in facing relation.” The second waist region is comprised by “second side panels,” each of which is further comprised by “initially outward-facing fastening components.” The plain and ordinary meaning of “comprising” is “to be made up of.” *Id.* at 237. Because the plain and ordinary meaning of Claim 4 that a “folded pant” has a “second waist region[] . . . comprising second side panels . . . and the second side panels comprising initially outward-facing fastening components,” the claim language clearly indicates that the initially outward-facing fastening components must be outward-facing when the pant is folded, and not prior to folding.

Furthermore, the specification language supports this interpretation of “initially outward-facing.” The specification explains that “initially outward-facing” means that “the second fastening components 84 and 85 will . . . be referred to herein as the initially outward-facing fasteners 84 and 85 because they are on a surface of a side panel that faces away from the other side panel *when the product is folded in half* but prior to formation of the lap seam.” (‘221 Patent col. 26 lns. 12-22 (emphasis added), ECF No. 620-1.) The specification language shows that the patentee clearly intended to limit the scope of the claim term “initially outward-facing fasteners” to mean that the fasteners are outward-facing when the pant is folded. *Cf. Linear Tech. Corp. v. Int'l Trade Comm'n*, 566 F.3d 1049, 1057-58 (Fed. Cir. 2009) (explaining that it is improper to limit a claim to embodiments described in the specification where there is no clear intention to limit the claim scope). The grammatical construction of Claim 4 is in accord with the patentee’s intended meaning. Because First Quality’s process does not include initially outward-facing fastening components when the pant is folded in half, First Quality’s process cannot literally infringe Claim 4 of the ‘221 Patent. Dependent Claims 5, 7, and 10 cannot be infringed as a matter of law because

First Quality's process does not literally infringe independent Claim 4. *Wahpeton Canvas*, 870 F.2d at 1553.

K-C argues that First Quality waived its argument regarding the construction of "initially outward-facing" because it was not raised during the *Markman* hearing. (K-C Br. in Opp'n 18-19, ECF No. 728.) K-C's waiver argument is misplaced. First Quality's argument regarding the plain and ordinary meaning of Claim 4 is in line with the agreed construction during the *Markman* phase of this litigation proceeding. The parties agreed to the construction of three terms of the '221 Patent and further agreed that the plain and ordinary meaning of the remaining terms did not need any further construction. (Joint Submission of Agreed and Disputed Claim Constructions 3, 7, ECF No. 328.) K-C cannot complain that it is somehow prejudiced by First Quality's interpretation of the plain and ordinary meaning of the "initially outward-facing" term when K-C had an opportunity to offer an alternative construction during the *Markman* hearing. Moreover, the plain and ordinary meaning of the term, as well as the specifications, clearly supports First Quality's interpretation.

## **2. Side Panel Transfer Devices & Z-Direction**

K-C also contends that First Quality's manufacturing process infringes Claim 15 of the '221 Patent. The method taught in Claim 15 includes transporting the first and second side panels on side panel transfer devices while the folded pant chassis is transported in a machine direction. The first side panels are then moved "in the z-direction toward the second side panels while the first side panels are transported on the side panel transfer devices" at which point the fastening elements are engaged. ('221 Patent col. 34 lns. 61-65.) K-C's infringement claim fails because First Quality's method does not involve movement of either side panel in the z-direction.

As First Quality explains, moving the side panels in the z-direction is needed in K-C's process in order to align the fastening components with each other when the side panels are of equal width. The reason is that when the portion of the second side panel on which the fastening component is located is inverted or folded, that side panel is shortened in relation to the first side panel on which the other fastening component is situated. Moving the first side panel in the z-direction "perpendicular from the pant transport plane," as Claim 15 teaches, therefore brings the fastening components on the first and second side panels into alignment, allowing them to be successfully joined. This is clearly depicted in the animation that is attached as Exhibit 2 to the November 22, 2011 Declaration of Daniel D. Gardner. (ECF No. 628-2.)

The side panels of First Quality's training pants, however, are of unequal width. As a result, the fastening components on the first and second side panels are already in alignment when the pant is folded at the crotch. Thus, there is no need for movement of one side panel in the z-direction in order to bring them into alignment. And since First Quality's process does not include movement of one side panel in the z-direction as Claim 15 teaches, it does not infringe.

In an effort to avoid this conclusion, K-C argues that a reasonable jury could find that the upper transport conveyor system that First Quality uses to transport its training pants constitutes a side panel transfer device and thus satisfies this limitation of Claim 15. In essence, K-C is arguing that there is no requirement in Claim 15 that the side panel transfer device be separate and distinct from the device that transports the pant through the assembly process. First Quality points out that "Claim 15 requires 'transporting the folded pant chassis in a machine direction thus defining a *pant transport plane* . . . each side panel transfer device defining a *side panel transport path* which *intersects the pant transport plane*.'" (First Quality Reply Br. 7 (quoting Claim 15)

(italics added by First Quality), ECF No. 757.) The term “pant transport plane,” much like the “z-direction” term, is an abstract concept that does not call for a specific apparatus. In contrast, the claim language does define a side panel transfer *device*. Thus, the side panel transfer device could conceivably also transport the folded pant chassis.

K-C argues that First Quality’s process meets the z-direction limitation of Claim 15 because as the unfolded pant enters the folding nip in the first stage of the fastening process and the partially folded pant chassis is transported in the machine direction through the nip, “the front side panels of the ‘folded pant chassis’ move down the upper conveyor in the z-direction towards the rear side panels which are simultaneously being moved upward by the ‘pocket belt.’” (K-C Br. in Opp’n 26, ECF No. 728.) Because the side panels are moving in a z-direction in relation to the pant chassis while the panels or a portion thereof remain on the vertical portion of the upper conveyor, K-C claims that the z-direction limitation of Claim 15 is met.

I find this aspect of K-C’s argument unconvincing. In order to meet the z-direction limitation of Claim 15, more is required than movement of the side panels at some point in the process in a direction perpendicular to the chassis. The z-direction movement must occur “while the first side panels are transported on the side panel transfer devices . . . .” (‘221 Patent col. 34 lns. 62-63, ECF No. 628-1.) Under the plain meaning of the claim, the movement in the z-direction occurs only after the “folding of the pant chassis about a fold line extending in a lateral direction through the crotch region, thereby positioning the waist regions and the first and second side panels in a facing relation.” (‘221 Patent col. 34 lns. 48-52.) By the time the pant chassis is completely folded bringing the side panels and the waist regions in a facing relation, the side panels are no

longer on the vertical portion of the upper conveyor. First Quality's process does not meet the z-direction limitation because, in First Quality's Process, the movement of the first side panel in the z-direction occurs before the pant chassis is folded.

The key issue here is the interpretation of the claim language "folded pant chassis" because it is in relation to the folded pant chassis that the terms "pant transport plane" and "z-direction" are defined. A "folded pant chassis" does not exist until the pant passes fully through the folding nip. This is because a "folded pant chassis" does not exist until after the entire pant has been folded and the side panels are in a "facing relation." K-C concedes as much in its response brief, noting that "[b]y the plain language of Claim[] . . . 15, a pant or pant chassis is folded when front and back waist regions and/or front and back side panels have a 'facing relation.'" (K-C Resp. Br. in Opp'n 23, ECF No. 728.) This does not occur until the folding is complete. Thus, it is not sufficient for a small portion of the chassis to be folded, but rather the degree of folding must bring the side panels and the waist regions into a facing relation. And since First Quality's process does not involve movement of a side panel in the z-direction after the pant chassis is folded, Claim 15 is not infringed.

## **CONCLUSION**

For the reasons set forth above, I conclude there are no material facts in dispute and that First Quality's process does not infringe on independent Claims 4 or 15 of the '221 Patent. In addition, because independent Claim 4 is not infringed, dependent Claims 5, 7, and 10 are also not infringed. And because independent Claim 15 is not infringed, it follows that dependent Claim 16

is not infringed either. Accordingly, First Quality's motion for summary judgment of non-infringement (ECF No. 604) is **GRANTED**.

Dated this 27th day of November, 2012.

s/ William C. Griesbach  
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William C. Griesbach, Chief Judge  
United States District Judge